GRUNDFOS

Submittal Data

PROJECT:	Hurley Engineering-TPE3 READY TO SHIP	UNIT TAG:		QUANTITY:	1
		TYPE OF SERVICE:			
REPRESENTATIVE:	Hurley Engineering	SUBMITTED BY:	Devin Carle	DATE:	2/10/2020
ENGINEER:		APPROVED BY:		DATE:	
CONTRACTOR:	To Be Determined	ORDER NO.:		DATE:	

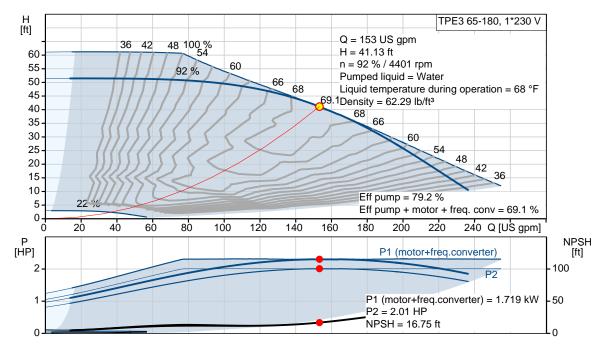


TPE3 65-180 S-A-G-I-BQQE-HAC

Single-stage stainless steel in-line pumps with frequency converters

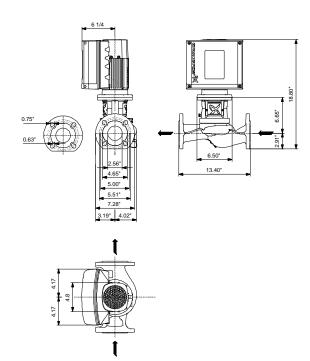
Product photo could vary from the actual product

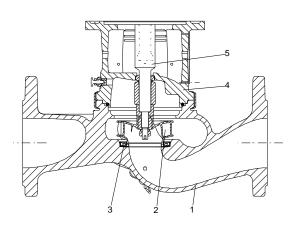
Conditions of Service		Pump Data		Motor Data	
Flow:	153 US gpm	Liquid temperature range:	-13 248 °F	Rated power - P2:	2 HP
Head:	41.13 ft	Maximum ambient temperature:	122 °F	Rated voltage:	200-240 V
Efficiency:	69.1 %	Shaft seal:	BQQE	Main frequency:	60 Hz
Liquid:	Water	Pipe connection:	DN 65	Number of poles:	0
Temperature:	68 °F	Product number:	98819698	Enclosure class:	IP55
NPSH required:	16.75 ft			Insulation class:	F
Viscosity:				Motor protection:	YES
Specific Gravity:	1.000			Motor type:	90B
				Motor_efficiency:	87.5 %





Submittal Data



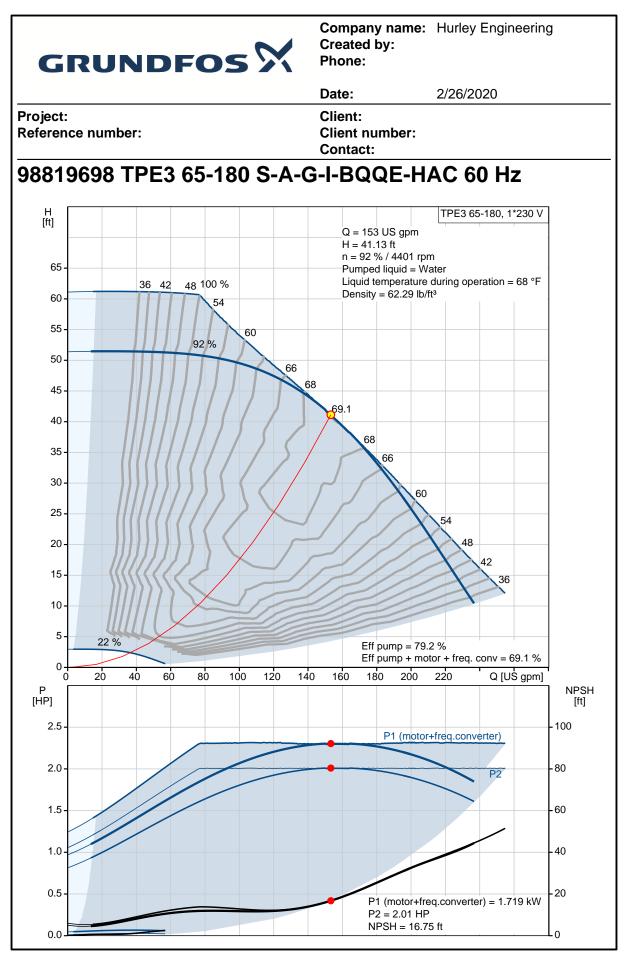


Materials:

Pump housing:	Stainless steel ASTM CF8
Impeller:	Composite PES/PP 30% GF
Material code:	I

G	RUNDFOS	Created by	Hurley Engineering		
		Date:	2/26/2020		
ojec efere	et: ence number:	Client: Client number: Contact:			
ount	Description				
1	TPE3 65-180 S-A-G-I-BQQE-HAC				
	Product No.: 98819698				
	be removed for maintenance or The shaft seal is according to El Pipework connection is via PN 1 The pump is fitted with a fan-coo is classified as IE5 in accordance The motor includes a frequency	bled, permanent-magnet synchron e with IEC 60034-30-2. converter and PI controller in the the motor speed, which again enal	emains in the pipework. ria PN 16 ANSI flanges. ous motor. The motor efficiency motor terminal box. This enables		
	Selected liquid temperature:	68 °F			
	Density:	62.29 lb/ft ³			
	Technical: Pump speed on which pump dat	ta is based: 4470 rpm			
	Technical:				
	Technical: Pump speed on which pump dat Actual calculated flow: Resulting head of the pump: Actual impeller diameter: Code for shaft seal:	ta is based: 4470 rpm 153 US gpm 41.13 ft 3.07 in BQQE ISO9906:2012 3B2 Stainless steel			
	Technical: Pump speed on which pump dat Actual calculated flow: Resulting head of the pump: Actual impeller diameter: Code for shaft seal: Curve tolerance: Materials:	ta is based: 4470 rpm 153 US gpm 41.13 ft 3.07 in BQQE ISO9906:2012 3B2			
	Technical: Pump speed on which pump dat Actual calculated flow: Resulting head of the pump: Actual impeller diameter: Code for shaft seal: Curve tolerance: Materials: Pump housing:	ta is based: 4470 rpm 153 US gpm 41.13 ft 3.07 in BQQE ISO9906:2012 3B2 Stainless steel ASTM CF8 EN 1.4308			

GRUNDFOS	5 8	Company name: Created by: Phone:	Hurley Engineering
		Date:	2/26/2020
Project: Reference number:		Client: Client number: Contact:	
Count Description			
Pipe connection: Pressure rating for pipe connec Flange size for motor:	DN 65 ction: PN 16 56C		
Electrical data: Motor type: IE Efficiency class: Rated power - P2: Main frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed: IE efficiency: Motor efficiency at full load: Number of poles: Enclosure class (IEC 34-5): Insulation class (IEC 85): Motor Number: DOE Pump Energy Index VL: Net weight: Country of origin: Custom tariff no.:	90B IE5 2 HP 60 Hz 1 x 200-240 9.20-7.60 A 0.99 480-5900 rp 87.5% 87.5 % 0 IP55 F 99630347 0.39 67.3 lb 67.3 lb HU 8413.70.202	m	



Printed from Grundfos Product Center [2020.02.002]

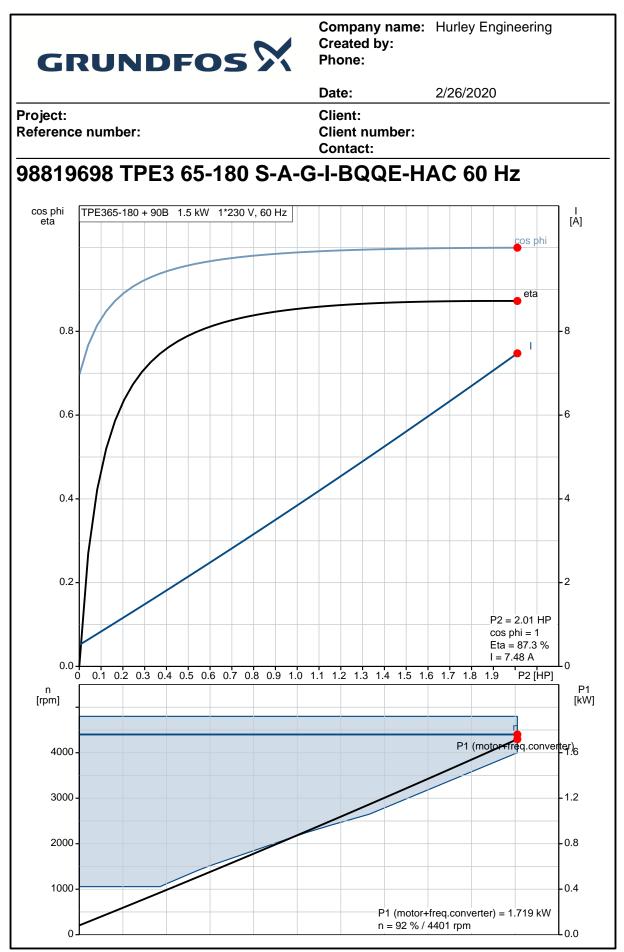


		Date: 2/26/2020		
Project:		Client:		
Reference number:		Client number:		
		Contact:		
-		H TPE3 65-180, 1*230 V		
Description General information:	Value	[ft] Q = 153 US gpm		
General Information:		H = 41.13 ft = 22 % / 4401 rpm		
Product name:	TPE3 65-180 S-A-G-I-BQQE-HAC	60 - Pumped liquid = Water		
Product No.:	98819698	55 - Liquid temperature during operation = 68 °F - Density = 62.29 lb/ft ³		
EAN:	5712601845212	50 - 66		
	5712601845212	45-68		
Technical:		40-68		
Pump speed on which pump data is based:	4470 rpm	35 66		
Actual calculated flow:	153 US gpm			
Resulting head of the pump:	41.13 ft	20 - 48		
Head max:	59.06 ft	42 15 - 42 36		
Actual impeller diameter:	3.07 in	10-		
Code for shaft seal:	BQQE			
Curve tolerance:	ISO9906:2012 3B2	5 22 70 Eff pump = 79.2 % Eff pump + motor + freq. conv = 69.1 %		
Pump version:	А	0 50 100 150 200 Q [US gpm]		
Materials:		P NPSH [HP] [ft]		
Pump housing:	Stainless steel	P1 (motor+freq.converter)		
	ASTM CF8	2- 100		
	EN 1.4308			
Impeller:	Composite PES/PP 30% GF	1 50		
Material code:		P1 (motor+freq.converter) = 1.719 kW		
Installation:		P2 = 2.01 HP NPSH = 16.75 ft		
Range of ambient temperature:	-4 122 °F			
Maximum operating pressure:	PN 16 bar	£ (#		
Type of connection:	ANSI			
Pipe connection:	DN 65			
Pressure rating for pipe connection:	PN 16			
Flange size for motor:	56C	457 457 1567		
Connect code:	G	500 - 120 - 120		
Liquid:		- t		
Pumped liquid:	Water			
Liquid temperature range:	-13 248 °F			
Selected liquid temperature:	68 °F			
Density: Electrical data:	62.29 lb/ft ³			
Motor type:	90B			
IE Efficiency class:	IE5			
Rated power - P2:	2 HP	, `⊂_U_ &©		
Main frequency:	60 Hz			
Rated voltage:	1 x 200-240 V			
Rated current:	9.20-7.60 A			
Cos phi - power factor:	0.99			
Rated speed:	480-5900 rpm			
IE efficiency:	87.5%			
Motor efficiency at full load:	87.5 %			
Number of poles:	0			
1				

Printed from Grundfos Product Center [2020.02.002]



		Date:	2/26/2020
Project: Reference number:		Client: Client number: Contact:	
Description	Value		
Enclosure class (IEC 34-5):	IP55		
Insulation class (IEC 85):	F		
Motor protection:	YES		
Motor Number:	99630347		
Controls:			
Control panel:	HMI300 - Graphical		
Function Module:	FM300 - Advanced		
Frequency converter:	Built-in		
Others:			
DOE Pump Energy Index VL:	0.39		
Net weight:	67.3 lb		
Gross weight:	67.3 lb		
Config. file no:	98481405		
Country of origin:	HU		
Custom tariff no.:	8413.70.2022		



Printed from Grundfos Product Center [2020.02.002]

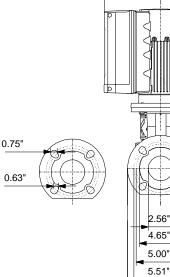


2/26/2020

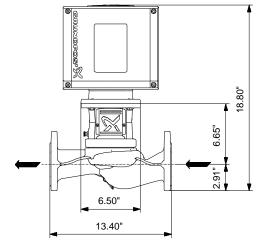
Project: Reference number: Date:

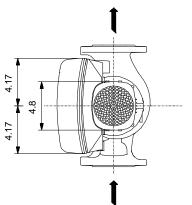
Client: Client number: Contact:

98819698 TPE3 65-180 S-A-G-I-BQQE-HAC 60 Hz



6 1/4





7.28"

Note! All units are in [in] unless otherwise stated. Disclaimer: This simplified dimensional drawing does not show all details.



2/26/2020

Project: Reference number: Date:

Client:

Client number:

Contact: 98819698 TPE3 65-180 S-A-G-I-BQQE-HAC 60 Hz \sim Ν I. PE NC C1 NO NC C2 NO 18 GND +24 V* OC 11 DI4/OC2 19 Pt100/1000 17 Pt100/1000 12 AO Ø 9 GND -+24 V* +24 V*/5 V* +24 V* $(\mathbf{\dot{+}})$ (\mathbf{b}) († 14 AI3 DI2 1 21 LiqTec GND 20 22 LiqTec ос DI GND +24 V* DI3/OC1 10 4 AI1 +24 V* +24 V*/5 V* 2 DI1 +24 V* ٦ ÷ 5 +5 V GND 6 А GENIbus A GENIbus Y Y GENIbus B В 3 GND 15 +24 V 8 +24 V 26 +5 V 23 GND 25 GDS TX +24 V* +24 V' +24 V*/5 V* Ē ⇆ (Ŧ 24 GDS RX +5 V* 7 AI2 All units are [in] unless otherwise presented. Printed from Grundfos Product Center [2020.02.002]

GRUNDFOS X

		Date:	2/26/2020
Project: Reference number:		Client: Client number: Contact:	
Order Data:			
Product name: Amount: Product No.:	TPE3 65-180 S-A-G-I-BC 1 98819698	QQE-HAC	
Total: Price on r	request		